

BRIEF PREPARED BY

THE HUMAN ECOLOGY FOUNDATION OF CANADA

for the

HOUSE OF COMMONS

STANDING COMMITTEE ON HEALTH AND WELFARE

STUDY OF THE HEALTH CARE SYSTEM AND ITS FUNDING

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For further information, please contact:

Lynda Brooks

Director

Human Ecology Foundation of Canada

(613) 836-7656 or 831-2865

or

Anne Castle

Director

Human Ecology Foundation of Canada

and

President

Ottawa Branch, Human Ecology Foundation of Canada

(613) 233-2461

1. INTRODUCTION

A The Human Ecology Foundation of Canada

The Human Ecology Foundation of Canada is a charitable organization which helps people who suffer from environmental illness, a disorder characterized by multiple sensitivities to inhalants, chemicals, and other common pollutants and toxins in the air, food and water.

The Human Ecology Foundation is run by volunteers who have the illness themselves. It currently has a membership of over 1200 families in Canada, with branches in Ontario, New Brunswick and Nova Scotia.

The objectives of the Foundation are to act as a mutual aid and self-help group to its members; to bring about a great public awareness of environmental illness and the role of environmental pollution as a cause of illness; to increase the awareness of government and public officials; to advocate medical research and to solicit from Governments and Institutions changes in practices and conditions known to aggravate the illness.

B What is Environmental Sensitivity or Ecological Illness?

The following definition of environmental sensitivity* is taken from the Thomson Report on environmental disorders:

"Environmental hypersensitivity (ecological illness) is a chronic (i.e., continuing for more than three months) multi-system disorder, usually involving symptoms of the central nervous system and at least one other system. Affected persons are frequently intolerant to some foods and they react adversely to some chemicals and to environmental agents, singly or in combination, at levels generally tolerated by the majority. Affected persons have varying degrees of morbidity, from mild discomfort to total disability. Upon physical examination, the patient is normally free from any abnormal objective findings. Although abnormalities of complement and lymphocytes have been recorded, no single test, including serum IGE, is consistently altered. Improvement is associated with avoidance of suspected agents, and symptoms recur with re-exposure." ¹.

In some respects, environmental sensitivity is analogous to diabetes. Both illnesses present themselves with symptoms which vary greatly in severity and the extent of disability. Similarly,

* The term environmental sensitivity is used throughout the report. However, the term is synonymous with the illness which is also known as environmental hypersensitivity, environmental illness, ecological illness, and "20th century disease".

treatment in both illnesses can be quite minimal, with attention to diet a satisfactory solution for some patients, while other persons require medical treatment and enormous changes in lifestyle.

C. Purpose of Brief

The Human Ecology Foundation of Canada has prepared this brief for the following reasons. First, The Human Ecology Foundation would like to bring to the attention of the general public and institutions the plight of Canadians suffering from environmental sensitivities. Many of the problems of the ecologically ill stem from the lack of official recognition of environmental sensitivity by the health care system. As a result, patients do not receive adequate treatment. The economic burden can be intolerable for families because most of the expenses associated with the illness are not covered by public or private medical plans. Also, lack of recognition of the illness fosters blatant prejudice and discrimination by medical practitioners and the health care system toward persons suffering from this disorder.

Secondly, we wish to bring to public attention the effects of the proliferation of chemicals in the environment on human health, and the failure of the health care system to recognize chemical pollution as a major contributing factor to illness. Environmental sensitivity, a manifestation of chemical pollution in the home, the workplace and the environment, would appear to be increasing very rapidly. No official statistics are available; however, organizations representing persons with environmentally related illnesses have sprung up throughout Canada, Great Britain, the United States, Australia and New Zealand in the last 15 years, with membership increasing exponentially. For a list of such organizations, see Appendix 1.

2. THE NATURE OF ENVIRONMENTAL SENSITIVITY

What is Environmental Sensitivity?

Environmental sensitivity is associated with a wide range of physiological responses to environmental factors including chemical toxicity, ionized and electromagnetic radiation from unsafe electrical environments, and adulterated food. These stresses weaken the body, making it vulnerable to viruses, parasites, fungi which, in turn, lower resistance to disease further.

The symptoms of environmental sensitivity vary considerably from one person to another but may include malfunctioning of the immune system, allergy (IGE mediated), food sensitivity, celiac disease, colitis, tension-fatigue syndrome, disorders of the nervous system, depression, hyperactivity and nervousness. Symptoms may be acute or chronic and vary in severity from a minor inconvenience to chronic disability.

An environmentally sensitive person's central nervous system may react intensely to infinitesimal exposure to pollutants, toxic chemicals and seemingly harmless substances.

Most people know from childhood that they must eat a balanced diet, get enough sleep, and try to avoid infections. Some conditions, though, are not easily controlled. People are sensitive to their surroundings. An environmentally sensitive person is excessively reactive to external and internal factors and reacts much more intensely than others to the substances that s/he is sensitive to and often to other factors such as chilling, fatigue and infections.

When do environmental sensitivities first appear?

Environmentally sensitive persons usually experience their first reactions as children. However, people may develop sensitivities at any time in their lives. Sometimes the illness develops suddenly following a viral infection and/or chemical exposures. There appears to be a genetic factor connected with environmental sensitivity. However, repeated and prolonged exposure to almost any toxic substance will result in sensitivity to that substance regardless of genetic inheritance.

How are environmental sensitivities treated?

Identification and avoidance of offending substances is considered to be the optimal means of managing environmental sensitivities. By limiting the exposure to foods and substances which cause reactions, the

acute sensitivity of the body is often reduced. This usually requires changes in diet, home and work environments and attitudes which may be minor inconveniences or major changes in way of life.

What can cause environmental sensitivities?

- a. Incitants in the air (dusts, molds, pollens, animal danders, feathers, plant odors (terpenes), chemicals (i.e., fumes, smokes, formaldehyde, herbicides, insecticides, disinfectants, perfume, cosmetics, etc.)).
- b. Substances taken in by mouth (foods, beverages, medications, chemicals in food (i.e., preservatives, additives, artificial sweeteners, flavourings, dyes, bleaching agents, herbicides, pesticides, fungicides, etc.)).
- c. Infections (i.e., viral, fungal and bacterial).
- d. Touch (i.e., poison plants, fish, woods, metals, cosmetics, soaps, shampoos, lotions, creams, deodorants, bath salts, aftershaves, detergents, bleaches, disinfectants, clothing, textiles, vinyl, plastics, rubber, insecticides, etc.).

How do incitants cause reactions?

When a reaction occurs upon exposure to an incitant, the body releases various chemicals (i.e., histamines, serotonin). Histamine can cause the small capillaries to dilate, thereby changing blood flow. The capillaries then become permeable. The end result is the leaking of fluid from the capillaries into the tissues. The collection of this fluid which can occur anywhere in the body is called edema. Serotonin can cause constriction of the blood capillaries. Upon release, these two chemicals can trigger spasms of the bronchial tube (increase mucus secretions), gastrointestinal (gut) and genitourinary systems as well as central nervous system reactions. Fluctuations in the total body load explain why an individual can tolerate the environment at certain times and be almost totally intolerant at other times.

Total Body Burden or Overload

Overload can occur anywhere in the body. A reaction may involve any organ or tissue, from the head to the soles of the feet, inside the body and on its surface. Manifestations include hives, hay fever, asthma, eczema and nasal congestion. Headache, dizziness, ringing of the ears, irritated eyes, diarrhea, or vomiting may also be due to overload. Sensitivity to the same food may produce an intestinal upset in one individual, hives in another and asthma in the third. Particles breathed in may cause hay fever in one and skin sensitivity in another.

Why this should vary from one person to another has not been determined, but heredity seems to play a role. Different people have different "target organs", as they have been termed. The spiritual, psychological and emotional state of the individual may influence total load. For a review of personal case histories of children and adults suffering more severely from environmental sensitivity, please refer to Appendix 2.

Adaptive Mechanisms and Masking (acute toxicological tolerance)

Masking occurs when a person becomes so accustomed to an incitant that the connection between cause and effect is not made. For example, when a foul odor or contaminant enters a person's environment, the individual becomes used to it after a short period of time and does not smell the odor. The contaminant may continue its toxic effects, increasing the person's total load without his knowledge. Masking appears to be a short-term survival mechanism with a long-term price. The price may be paid soon after exposure or 20-30 years later with additional contamination with other incitants.

Hans Selye refers to the above mentioned process as the General Adaptation Syndrome. The first stage of stress is alarm, followed by adaptation, a chemical rallying by the body's defenses. If the threat is prolonged, exhaustion sets in and the defense systems are worn out. A person susceptible to environmental sensitivities would become chronically sick at this stage and become a "universal reactor" who is sensitive to almost all natural and synthetic substances.

Distinctions Between Allergists and Clinical Ecologists

Allergists are concerned with IGE mediated responses. These include such reactions as hay fever, asthma, eczema and congested nasal passages. Allergists have generally explored the apolitical world of pollens, dusts, animal dander and mold. Clinical Ecology encompasses all immunoglobulin and cell-mediated responses. Clinical Ecologists, physicians who study the effects of the environment and its role on health, play the most important role in treating persons suffering from environmental sensitivity. In addition, these physicians address reactions to synthetic and natural toxins including pesticides, herbicides, phenols, hydrocarbons, formaldehyde, and food additives which are common in 20th century environments. Clinical Ecologists also recognize the occasionally harmful overuse of antibiotics and other powerful medications on the environmentally sensitive person. They seek to find ways of building the health of the individual through the supplementation of vitamins and minerals, through the detoxification of the body and through strengthening of the immune system with improvement of living and working conditions and environmental control.

3. RECOGNITION OF ENVIRONMENTAL SENSITIVITY

The Department of National Health and Welfare, the Canadian Medical Association and the Ontario College of Physicians and Surgeons do not officially recognize environmental sensitivity as a disorder. As a consequence, large numbers of people have unnecessarily suffered physically, emotionally and financially. It is time for medical officials and the health care system in Canada to publicly acknowledge the realities of the illness.

The Province of Ontario appointed Judge Thomson to head the ad hoc Committee on Environmental Hypersensitivity Disorders in 1984. The committee received 614 written submissions from patients and interviewed numerous doctors and associations as well as investigating doctors' practices in Canada in the United States through personal visits. This report of the committee, published in 1985, was, to our knowledge, the first public investigation in Canada of environmental sensitivity.

Unfortunately, of the 30 recommendations of this Committees, most have not been implemented. One of the apparent reasons would appear to be the controversy that exists in the medical profession. Indeed, the remarks below are quoted from the Thomson committee in relation to the "professional" debate.

"As a Committee, we have become increasingly dismayed at the polarized and adversarial positions being taken in the United States on the issue of environmental sensitivity. Our unease has been increased by the realization that there is evidence, although fortunately not yet extensive, that the same hardening of attitudes is taking place in Ontario, often fueled by media reports that highlight the extreme positions referred to elsewhere in this chapter. The toll, emotional and financial, on those involved in disputes in the United States was apparent to us; increasingly the conflict seems to be moving into the courtroom.

We believe that confidence in the health system is eroded when productive dialogue between different medical specialties disappears or is replaced by acrimonious debate before a confused public. Protagonists take up positions that are clearly untenable: e.g., "all medical treatments are based upon sound scientific research"; "The environment plays little role in the generation of disease"; "all the identified patients are emotionally ill". Research that is clearly unsound methodologically is given greater weight than it deserves. There is a tendency to assert the validity of one's position on the basis of the quantity, not the quality, of the clinical trials that have been undertaken. Success is measured in the name of the latest clinician or researcher to cross from one side to the other.

The committee feels strongly that taking an absolute stance in this field is not only risky scientifically, given that there is a great deal we do not know about our environment and its effects on us, but it is also unproductive and divisive, antithetical to the task of promoting collaborative efforts that will help in understanding and treating the problem of a growing number of patients.

We emphasize again the need to develop approaches that bring together all practitioners, however their perspectives differ, and to do so before the gulf between them becomes as great as it now appears to be in the United States." ¹.

Nevertheless, the federal departments of the Environment, and the Secretary of State provided financial support for the National HEF Conference in 1987. Also, the Ontario Housing Corporation has provided, in some cases, grants and loans to persons disabled by environmental sensitivities who require modifications to their homes. The Trillium Foundation has also provided a sustaining grant to the Ontario (provincial level) of HEF which is known as the Allergy and Environmental Health Association. This assistance has been appreciated. However, lack of official recognition of the disease, and available treatment, means that provincial medical insurance and private health insurance plans do not cover expenditures for medical treatments.

Further, although many of the members' expenses in terms of food, nutritional supplementation and complementary medical fees would exceed the expense of persons with more observable physical disabilities, they do not consistently qualify for assistance under the Federal Income Tax laws.

The number of medical practitioners specializing in the treatment of environmental sensitivities is limited and they are also not recognized.

As stated in the Thomson Commission Report, the conflict seems to be moving into the courtroom. In the United States, the Association of Trial Lawyers of America has adopted a resolution that recognizes that environmental sensitivity is an emerging and potentially major public health problem and supports environmentally sensitive victims. The text of the resolution is attached as Appendix 3.

The Human Ecology Foundation of Canada believes that victims of environmental sensitivity should not have to resort to litigation in order to establish the existence of the disorder as a recognized syndrome.

4. EFFECT OF THE ENVIRONMENT ON HUMAN HEALTH

The Human Ecology Foundation concurs with the following statement by Dr. Ian McTaggart-Cowan that

"One of the most daunting environmental problems of our time arises from the flood of man-made chemicals pervading our lives... The ingenuity of those who have contrived new chemical compounds and devised ways of inserting them into our economy in useful forms or new processes has had much to do with the improvement of the human state. We have too frequently ignored the other side of the coin. To our distress we have slowly learned that some of these products are damaging to human health... It is urgent that Canadians clearly grasp the extent and insidiousness of this threat to the viability of our environment." 2.

Persons suffering from environmental sensitivity are all too aware of the impact of ambient chemical pollution on their health and ability to function in the home and workplace. Just as canaries were used in the mines to give advance warning of poisonous vapours, victims of environmental sensitivity are now serving as unwilling indicators of the ever increasing environmental pollution.

Numerous scientific reports are available which indicate the effect of every day chemical pollution on human health. These reports cover a diversity of matters such as the UFFI disaster, the East Coast mussel contamination, the tight building syndrome and cigarette smoke pollution.

Further, the standards used by health officials to determine acceptable levels of pollution are completely unrealistic. While there is more than adequate scientific evidence to show the relationship between low level environmental pollutants on adverse health affects, there appears, for whatever reasons, a reluctance on the part of federal, provincial or municipal officials to exert the political will necessary to bring about change.

For years, various interest groups have approached governments about stating the potentially deleterious effect of such diverse factors as tobacco smoke, use of aluminum utensils, certain prescription drugs, fungicides and herbicides, only to be ignored. Persons suffering from environmental sensitivities are the victims of this failure of our political leaders to respond to these environmental concerns.

The Human Ecology Foundation of Canada is of the view that any study of the health care system and its funding should consider the importance of a healthy unpolluted environment in preventing degenerative diseases as well as environmental sensitivity. In addition, the health care system should devote more resources to the prevention of illness and the promotion of wellness instead of costly, interventionist, "high tech medicine".

5. PREJUDICE AND DISCRIMINATION

Access to social assistance programs and insurance by environmentally sensitive people is variable and uncertain. Some persons have received benefits under provincial social service plans, but the Thomson Commission (p. 136) points out that benefits were received only after a protracted and frustrating claims process.

The Thomson Commission mentions (p. 135 and 136) the importance of the attitude of the examining doctor having a "major impact" on whether or not persons with environmental sensitivities obtained Workers' Compensation benefits.

The discrimination is not confined to governmental institutions. There is a strong tendency by the traditional medical practitioner to refer patients with environmental sensitivity to psychiatrists when the medical tests do not reveal organic disease. For example, a medical practitioner suggested psychiatric counselling might help a woman who inquired as to whether or not her child's repeated ear infections might be linked to an allergy to milk.

One of the more glaring examples of this type of prejudice and discrimination occurred when one of our disabled members, attempting to obtain disability insurance, was required to visit a medical specialist for the insurance company. The doctor took the case history. He went on to offer some free advice. The doctor said he believed that the patient would never be able to work in sealed buildings again, and recommended that he move to a location where the air was clean, such as by the ocean. He also said that while he believed everything the patient had recounted, he would not be giving a diagnosis because of the controversial nature of the disorder. Later, however, when a copy of the doctor's report to the insurance company was obtained, the patient discovered that the doctor had diagnosed the patient's symptoms as psychological. The doctor stated that the symptoms were the patient's personal conviction which had grown to the intensity of a strongly held religious belief.

We have other examples of members who work in the medical profession who recount stories of how doctors laugh and mock patients who claim to experience medical symptoms as a result of exposures to certain foods and chemicals.

This behaviour is not only unprofessional and undignified but also ignorant. It blatantly ignores the legal rights of disabled and handicapped individuals to receive medical treatment without discrimination.

6. INADEQUACY OF TREATMENT PROGRAMS

There is no recognized, viable, standardized treatment, approved by the Canadian Medical Association for the treatment of this disorder. The modalities of treatment will vary from one patient to another, just as cancer treatment is adjusted for each patient.

The Thomson Committee noted that every person with environmental sensitivities improves with a clean place to sleep, clean air and water, and unprocessed foods grown without pesticides, and chemical fertilizers.

Persons with environmental sensitivities have benefitted from Clinical Ecology practiced by medical doctors, as well as complementary medicine as practiced by chiropractors, homeopaths, osteopaths, naturopaths, accupuncturists, and nutritionists, etc. In our view, complementary medicine does not conflict with traditional medicine. However, these disciplines are under attack by the medical community within North America.

As an example of this type of interference, attached as Appendix 5 is a summary of a Federal Court finding in the United States concerning the role of a major medical association in conspiracy to destroy the chiropractic profession. The Human Ecology Foundation finds that not only does conventional medicine in Canada not serve the needs of the environmentally sensitive, but those who attempt to address the condition are the target of criticism and harassment.

This mentality of hostility by the medical community to "new illness" has been occurring through the centuries. The case of Semmelweis, a doctor in 19th century Europe who clearly demonstrated that hand washing by physicians would decrease mortality rates amongst patients illustrates the point. He was harassed into obscurity. Today, we have thousands of people whose medical needs are not being met by allopathic medicine.

People with environmental sensitivity have not benefitted from the trend in the current health care system which is dependent on expensive technologies. This system tends to diagnose disease only when it has reached acute stages that require invasive, interventionist medical technology. Instead, our members have benefitted most from much less expensive treatments including clean food and water and complementary medicine.

Accordingly, the Human Ecology Foundation envisions the diversion of scarce financial resources away from the acute health care system and toward the maintenance of good health and prevention of illness. Clinical Ecologists are among the first in the world to recognize the threat of environmental pollutants on

human health. They have been successful in treating and preventing environmental sensitivity. In addition, Doctors W. Rea, F. Walkman and J. Krop have demonstrated the preventative and cost effective character of Clinical Ecology, particularly in the long run (3).

7. RESEARCH

The Human Ecology Foundation would support unbiased, scientific research on environmental sensitivities by the Government of Canada. We are of the view that research in this field could require a cross disciplinary and cross-departmental committee of scientists in the Departments of the National Health and Welfare, Environment, Agriculture and the National Research Council.

Although much of orthodox medicine (CMA approved) is based on clinical trials and is not questioned, we would vigorously support an evaluation of the existing research on environmental sensitivity and its treatment. Much of this literature is not published in the leading North American medical journals, although the Lancet, a prestigious British Journal does publish articles on environmental disorders. Clinicians have undertaken significant research. One hundred and eighty-five scientific papers in the field of environmental sensitivities have been published. ⁴. Appendix 4, "The Position Paper of The Canadian Society for Clinical Ecology and Environmental Medicine" includes a bibliography of publications on environmental medicine.

Judge Thomson recommends research on the aetiology of environmental sensitivity treatment, and the number of persons effected by it. The Human Ecology Foundation would add that longitudinal studies of persons with the illness and the medical treatments used by the membership would shed much light on the variance in the ways in which the illness presents itself and progresses. A comparison with Multiple Sclerosis, which varies enormously in its development may be analogous here.

Institutional research in the field of food sensitivities was curtailed in the late 1940's when one of the fathers of clinical ecology, Dr. Theron Randolph, using funds provided by a corn processing and distributing company, identified corn as a potent allergen and promptly found his research grant cut. Industry tends to select research projects primarily for their potential commercial applications rather than real health needs of the public. All research must be objective, impartial, unbiased and conducted by institutions and persons without conflicts of interest. The research should be multi-disciplinary in approach and include medical scientists, philosophers, economists, environmentalists. The Brundtland Commission report, Our Common Future, also sets out the importance of linking economic and environmental issues through "sustainable development". The Human Ecology Foundation would urge the continuation of government sponsored research in areas of public importance where the private sector might have a conflict of interest, e.g. food additives, pollutants, product safety testing, pesticides and herbicides. Also, a review of standards for pollution in the home and workplace must be re-evaluated to reflect the total load concept and the reality of the adverse affects of low level pollution.

8. OVERALL IMPACT ON FAMILIES AND INDIVIDUALS

Our members are generally dissatisfied that provincial health plans do not cover certain complementary therapies which have proven beneficial, while fully insured interventions have been tried and were found to be less helpful. For most members, the major costs are for lifestyle changes, tests and treatments. In addition, use of organic foods is normally a part of diet manipulation and such foods are costly and difficult to obtain. Substantial expense may be undertaken to obtain drinkable water. The expenses incurred by patients with environmental sensitivities are frequently a burden on families.

The recommended course of action for a number of people involves replacing home oil or gas heating units with electrical heat. Synthetic rugs, curtains and upholstered items may have to be removed from the house. These changes, which often inconvenience the other members of the family, are frequently a source of tension. In addition, the expense required for treatment, food and environmental changes means that spending priorities of other family members are denied or limited. Discretionary income is spent on the sick member(s) of the family. The Thomson Commission (p. 133) cited an average cost of \$4,463.00 in 1987 for the procedures described above.

In addition to the financial costs, some persons with environmental sensitivities have been laid off or have had to quit their jobs. Students have stopped going to school. Homemakers are not able to carry out their domestic responsibilities. In many cases, persons with environmental sensitivities have made career changes to avoid working in an environment which is unhealthy.

Because the illness is not recognized, members frequently have difficulty obtaining disability insurance carried by their employer.

Any chronic illness causes financial stress and anxiety. However, where the illness is unrecognized, the patient has additional problems because the illness is not readily understood by family, friends and colleagues.

Because environmental sensitivity has a genetic component, an environmentally sensitive parent generally has one or more children with sensitivities. The child's symptoms upon contact with toxic substances can include dyslexia and hyperactivity, poor concentration and memory. Children are much more sensitive to environmental factors than adults. Bruce M. Small and Associates⁵ presented clear evidence that staff and students were being exposed to pollution within their schools, and that some of the students were experiencing acute adverse effects from exposures. A copy of the executive summary of the Small report is attached as Appendix 6.

Where environmental sensitivities are very severe, the isolation from other human beings becomes acutely depressing. The lengthy convalescence from the illness where a person is house bound results in a loss of friends and colleagues. Appendix 6 of the Thomson Commission Report documents examples of depression, loneliness, frustration, and complete dependence upon the family.

9. ENVIRONMENTAL ILLNESS AND POVERTY

Environmental sensitivity is not recognized by any private sector disability insurance policies nor Workers' Compensation programs to the knowledge of HEF. Therefore many of our members find themselves in dire straits. Many persons with environmental sensitivities are dependent on welfare. They are either too ill to work or they are housebound due to environmental pollutants. Welfare payments do not take into consideration the supplementary expenses associated with the treatment of environmental sensitivities including less contaminated food and water, vitamin supplementation, natural fiber clothing and safe housing. Therefore persons with environmental sensitivities on welfare are likely to remain dependent on government assistance for longer than necessary periods of time. The plight of these people cannot be underestimated or ignored.

10. RECOMMENDATIONS

The Human Ecology Foundation of Canada, recommends to the Government of Canada the following:

1. Establishment of a Federal Task Force on Environmental Sensitivity and other conditions thought to be influenced by the environment.
2. Initiation of epidemiological research into the causes and effects of low level pollution, particularly as it affects persons with environmental sensitivities.
3. Review of accessibility of all federal social, medical and other support systems to persons with environmental sensitivities and consequent legislative amendment to eliminate discrimination.
4. Provision of a sustaining grant to the Human Ecology Foundation of Canada for furtherance of its family support, schools, community education and other programs.
5. Amendment of Federal Income Tax laws to provide financial relief to persons suffering from environmental sensitivities.
6. Initiation of an information campaign to address misconceptions about environmental sensitivities by health professionals and the general public.
7. Devotion of financial resources to prevention of illness, rather than costly interventionist medical technology that seeks to ameliorate the results of illness. In this regard, particular attention should be paid to the well being of children.
8. Initiation of an information campaign to increase environmental awareness in the medical professions, educational system, and the general public.
9. Establish an information and research centre for the study of the effects of the environment on human health with special attention to environmentally sensitive persons.

11. FOOTNOTES

1. Report of the Ad Hoc Committee on Environmental Hypersensitivities, Judge George M. Thomson, Chairman, Province of Ontario, August 1985. 2 volumes
2. Hall, R.H. and Chant, D.A. "Ecotoxicity: Responsibilities and Opportunities", in Canadian Environmental Advisory Council Report No. 8, Ottawa, August, 1979.
3. Dr. J. J. Krop, "Clinical Ecology: Future Prospect of Preventative Medicine", The Journal of Orthomolecular Medicine, Volume I, Number I.
4. Molot, John, M.D. et al, "Position Paper of The Canadian Society for Clinical Ecology and Environmental Medicine", 1988, pp. 40.
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13. APPENDICES

1. Environmental Health Organizations
2. Case studies of persons with Environmental Sensitivities
3. Resolution of the Consumer and Victim Coalition Committee of the Association of Trial Lawyers of America
4. Position Paper of the Canadian Society for Clinical Ecology and Environmental Medicine
5. "AMA found guilty by a federal court of conspiring to destroy the profession of chiropractic."
6. Environment and Education. Recommendations for action on pollution and education in Toronto: A report. Executive Summary.